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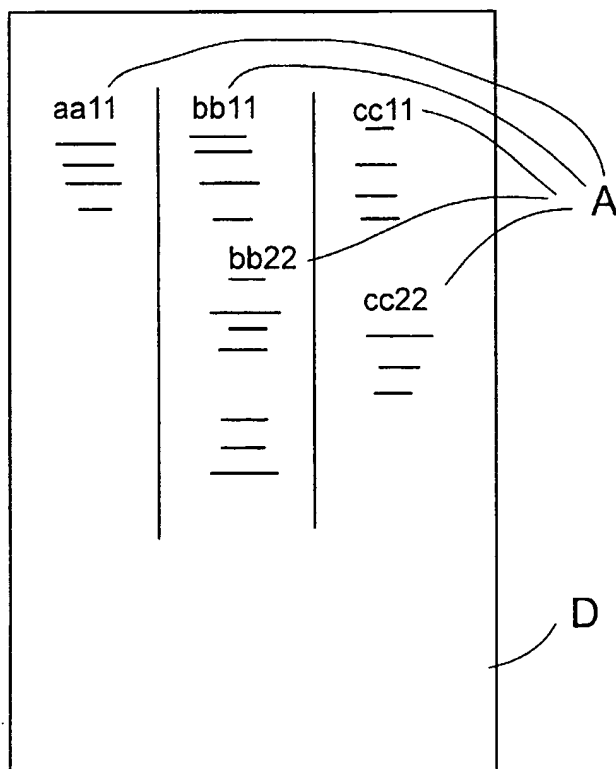
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(54) Title: METHOD AND DEVICE FOR ALLOCATING PRODUCT CODES TO PRINTED MATERIAL



(57) Abstract: The present invention relates to method and device to make it possible to digitally get access to physical pieces of information published in journals and similar media. For the purpose, article and other pieces of information are allocated alphanumeric identities which indicate bibliographical data such as publication, date of issue, subject field, author etc. Users who want access to the information establish contact with a search function which by means of an indicated code finds and transmits/transfers the information to one for the user personal home page, at which the information is stored on especially selected home pages, to which the user has access. Derived/produced information is at that allowed to be stored according to the user's wishes. The storing device can be specified in advance, or by additive information be given at ordering/request of the information. Input/entering of the codes can be done in different ways, for instance by keyboard/keyset, verbally, or by SMS-message.

WO 02/48918 A1

Method and device for allocating product codes to printed material

TECHNICAL FIELD

The present invention relates to telecommunication networks
5 where pieces of information are transmitted/transferred
digitally. Especially is in this context related to
conversion of physical publications such as articles in
newspapers into digital form, which are made accessible by
for instance Internet.

10

PRIOR ART

It is previously known to provide a user with Universal
Resource Location, to an article in a printed media, in
form of a code and to utilize Internet to load down
15 requested web page. The transmission between the user and
the computer can be wireless. This is evident from
publication WO 08/40823.

Further is evident from patent document US 5 905 251 that
terminals with www-access are known. The terminal contains
20 a code reader which reads codes which locates documents on
Internet. The terminal can be used in cellular
telecommunication systems. The document asked for is then
shown on screen to the user. Further is shown in patent
document S 5 005 976 a method and device for distribution
25 of pieces of information related to printed articles. The
method utilizes a telecommunication system.

In patent document US 5 496 071 a method to provide printed
work with article identities is described. Printed work,
for instance articles, are provided with a code which is
30 used at filing/storing of the articles.

Further example is patent document US 5 640 193 which shows
a device with a scanner which reads markings on an object
and which transmits/transfers the code of the marking to a
user interface. The interface can be wireless.

35

By the above mentioned documents it consequently is previously known to, by different technologies, identify and present articles via, for instance, Internet. The presentation seems in this context primarily to be done via
5 the publisher's own Internet page, alternatively by information retrieval in the publisher's databases. At this said Internet pages are identified via the described retrieval/search procedures in above mentioned documents.

10 TECHNICAL PROBLEM

There is a need to, in a simple way, identify articles on physical formats in order to, via telephones of different kinds, identify said article. Said article shall after that be possible to transmit to a portal or the like where the
15 user has access to said article. There consequently shall be created a link between a printed physical information and a digital media on Internet.

Further wishes are that articles and pieces of information of similar kind shall be possible to identify and be
20 derived/produced from a plurality of different sources at the same time. All information that turns up shall be possible to store in one to the user well-arranged and easily accessible way. There further is a wish that the sorting should be done according to by the orderer made up
25 criteria, for instance author, field of subject, publication, date of issue etc.

Further, there are wishes that articles/publications shall be filed/stored centrally and only apply to the current user's need.

30 The present invention has the intention to solve these problems.

THE SOLUTION

The present invention relates to method at
35 telecommunication system, intended to make possible transmission of printed information to a user. The

information is arranged by information publishers, who allocate the information an alphanumeric identification. An identification code is transmitted/transferred by the user to the receiver. The receiver identifies from the
5 identification code the wanted information. The receiver transmits/transfers the identification to the information publishers, who transmit/transfer the requested information to an information database from which the user is allowed to read/study the information as electronic documents.

10 Identification codes are transmitted/transferred by the user verbally or by means of keyboard/keyset. The identification codes are further allocated pieces of information regarding publisher, date, author etc. The
15 information further is transmitted to a portal, to which the user is connected and allocated a home page. Storing of the information is also allowed at own place, or transmitted via e-mail, or saved in other way by the operator so that the material/file will be accessible to
20 the customer. Pieces of information are transmitted to a portal, where the user is allocated personal pages. The information on the personal home page is stored according to by the user made up criteria, such as author, subject fields, media etc. Further, the system is based on
25 Internet, where the user reads/studies the information by establishing connection to the portal via Internet, and that set up is made via fixed or mobile Internet.

The invention further relates to device at
30 telecommunication system, where the telecommunication system includes users and service providers. The service providers are arranged to, from by the users transmitted codes, identify in printed media existing pieces of information which are made accessible to the users in
35 digital format. The digital information is

transmitted/transferred to the user over a personal home page.

The personal home page is located under a portal to which
5 the user is arranged to have access to the personal home
page on the Internet. The codes are further alphanumeric
and uniquely indicated for each printed piece of
information. The codes further indicate which media, for
instance journals or other publications, that are referred
10 to. The code further indicates author, subject fields,
publication date and issue date of the journal/publication.
The customer is further allowed to specify/indicate sorting
criteria, for instance publication date and/or author
and/or name of the journal/media. The portal further is
15 Internet based, and is arranged to retrieve said
information from current databases, which includes the
access to the publications/articles. The code is further
transmitted/transferred from the terminal, preferably a
mobile terminal. The code is allowed to be transmitted/
20 transferred as SMS-messages from the users. The code is
further allowed to be transmitted/transferred verbally or
via keyboard.

ADVANTAGES

25 The present invention has the advantage that ordering of
production/arranging of articles on physical media are easy
to identify and transmit and can be stored in place where
the user has access to the information digitally. Further,
the invention makes it possible that the user can store and
30 arrange the information in one to the user attractive way.
This means that storing and deriving of information is done
related to author, publication, publication date etc.
Further advantages are that the user need not specific
reading devices such as bar-code readers. To have
35 possibility to request reading/recording of found
information from just any place by means of telephones,

mobile telephones, computers etc, is a definite improvement which the user certainly will welcome.

The user further has an advantage of the possibility to
5 search information similar in character by requesting
searching based on different search criteria, such as
author's name, subject field and at that find this
information from different publishers. The invention
consequently provides users with a tool for storing,
10 searching and cataloguing of information within the frame
of one and the same system.

DESCRIPTION OF FIGURES

Figure 1 shows example of how the coding of the pieces of
15 information can be incorporated in respective physical
pieces of information. Articles and other information
included in a publication, D, is allocated alphanumeric
identification, A.

20 Figure 2 shows a schematic description of the principle of
the invention.

A user, 1, gets into contact with a portal, P, and states a
search criteria, identifying one or more
articles/publications published by publishers, or the like,
25 3-4. The portal includes search functions, which are
utilized for searching in the databases of the publishers.
Requested information is after that returned to the portal
which transmits/transfers the pieces of information to the
user's, 1, home page, 2, where the user after that has
30 access to the requested information via Internet.

PREFERRED EMBODIMENT

In the following, the invention is described with reference
to the figures and the indications in them.

The present invention relates to a method and device to make it possible to digitally get access to physical information, published in journals and similar media. For the purpose, articles and other pieces of information are
5 allocated alphanumeric identities, which indicate bibliographical data such as publication, publication date, subject field, author etc. Users who want access to the information contacts a search function which, by means of an indicated code, finds and transmits/transfers the
10 information to one for the user personal home page, alternatively on data files or other media to which the customer has access, at which the information is stored on especially selected pages, to which the user has access. The information in question is at that allowed to be stored
15 according to the user's wishes. The order of storing can be specified in advance, or by additional information given at ordering of the information. Input/entering of the codes can be done in different ways, for instance by keyboard/keyset, verbally, or by SMS-message.

20 Information in newspapers and other printed media is to a larger and larger extent converted by the publishers into digital form and is accessible via the Internet. These pieces of information are mainly accessible on the
25 publisher's own home pages. For persons who want to read/study a specific article/specific articles, is at present used the possibility to establish connection with respective publisher's home pages. To get access to the information in question, is after that required that the
30 person in question by means of different search tools finds the information he/she wants to read/study.

According to the present invention is suggested that articles and other information in printed media are
35 allocated numerical codes. Said codes identify unequivocally publishers, publications, date, the name of

the article, author etc. Said information is accessible in one at the publisher's arranged database. The database in this case relates to pieces of information about own articles and other information that have been given.

5

A user who wants information about a specific article, establishes connection, via his/her telephone, with a portal or the like, to which the code in question is transmitted/transferred. The code can be transmitted/
10 transferred orally, via SMS, or by means of keying a keyboard/keyset. By means of the entered codes, the portal identifies which publisher/publishers that are concerned and establishes connection with them. When connection have been established with publishers, the information in
15 question, the alphanumeric code, is transmitted/transferred, at which the publisher identifies the publication in question and which part/parts of the newspaper the customer wants to read/study. Further, an identification which the publisher uses to identify the
20 orderer is transmitted/transferred. This information can be telephone number, name or similar pieces of information which early identifies the person in question. The publisher after that derives/produces the information in question and transmits/transfers it to a portal, to which
25 the user has established a connection and has a personal home page. The information is after that stored under the portal on personal pages/the catalog, after which the user has possibility to read said information after establishing connection with the Internet.

30

The invention further provides a possibility to search certain types of articles, not necessarily published by one and the same publisher. The user is, for instance, interested in articles which relate to a specific subject
35 field. In such a case, information related to subject field is entered, at which the search function makes a search for

which pieces of information that exist in this respect. The information is after that, in way that has been described above, transmitted/transferred to the user's home page. The storing of the downloaded files is done in an order
5 which the user decides. This can be done in chronological order, according to author, newspaper etc.

A user, 1, reads a printed publication, D, articles, A, which he/she is interested in. The user at that notes the
10 alphanumeric code, aall, bb ll etc, of the articles. The user further can get said codes of the articles via other persons or via mail etc. The user finds/determines that one of the articles is interesting and shall be saved on a place where the user has access to said articles. For this
15 reason the user establishes a connection with a portal, P, by means of his/her telephone, which can be a fixed as well as a mobile one, whereupon the user identifies himself/herself to the portal, P, and transmits/transfers the alphanumeric code. By identification is in this context
20 meant that the user identifies himself/herself actively by means of different types of identification systems, or that the system identifies users, for instance by A-number identification or the like, alternatively that the user indicates specific codes which indicate alternative storing
25 places. The transmission/transfer of the alphanumeric code can be made by keying on keyboards/keysets, verbally, and by means of SMS-messages. The portal includes search functions by the aid of which the article can be identified regarding publisher, publication in question etc. The
30 portal, P, after that contacts publishers, 3-5, to find out whether any of these has the article in question in stock. The article is after that transmitted/transferred electronically to the portal, P, which forwards the information to one for the user personal web page, 2. On
35 the personal web page, or via the media the user has selected, the user has possibility to request that the

pieces of information be stored according to rules which have been stipulated by the user. The storing, can for instance, be done with regard to subject content, author, publication date etc. The instructions for storing can one
5 the one hand be selected in advance, on the other be selected in connection with the deriving of the publications/publications in question by indications in the given codes.

10 The user, 1, now can read/study said publications, A, by connecting to his/her personal web page via Internet. When connection has been established to the personal page, the user opens that page of the web page which contains the downloaded articles. This part of the web page is
15 preferably only accessible to the user. The pieces of information after that can be retrieved as electronic documents on computer, as SMS-message, voice message etc.

The invention is only limited by the patent claims below,
20 and can be subject to modifications within the frame of the idea of invention.

PATENT CLAIMS

1. Method at telecommunication system, intended to make
transmission of printed information to a user
5 possible, at which the information is made up/arranged
by an information publisher, at which the information
publishers allocate the pieces of information an
alphanumeric identification, c h a r a c t e r i z e d
in, that the user transmits an identification code to
10 a receiver which/who identifies the wanted
information, that the receiver transmits the
identification to the information publishers, who
transmit the wanted information to an information
database from which the user is allowed to read/study
15 the pieces of information as electronic documents.
2. Method as claimed in patent claim 1,
c h a r a c t e r i z e d in, that the user
transmits/transfers the identification code verbally
20 or by means of keyboard/keyset.
3. Method as claimed in patent claim 1,
c h a r a c t e r i z e d in, that the
identification code is allocated pieces of information
25 regarding publisher, date, author etc.
4. Method as claimed in any of the previous patent
claims, c h a r a c t e r i z e d in, that the pieces
of information are transmitted/transferred to a
30 storing place, for instance a portal, to which the
user is connected and allocated a home page/storage
space, at which the pieces of information are
transmitted/transferred to in the portal/storage
space, for the user, personal pages/storage spaces.
35
5. Method as claimed in patent claim 4,

c h a r a c t e r i z e d in, that the pieces of information are stored according to by the user made up criteria, such as author, subject field, media etc.

5 6. Method as claimed in any of the previous patent claims, c h a r a c t e r i z e d in, that the system is based on Internet, that the user reads/studies the pieces of information by establishing connection to the portal via Internet, and that establishing of
10 connection is done via fixed or mobile Internet.

7. Device at telecommunication system, at which the telecommunication system includes users and service providers, where the service providers are arranged to
15 via from the users transmitted codes identify in printed media existing pieces of information which are made accessible to the users in digital format, c h a r a c t e r i z e d in, that the digital information is transmitted to a personal home page
20 belonging to a user.

8. Device as claimed in patent claim 7, c h a r a c t e r i z e d in, that the personal home page is located under a portal, to which the user is
25 arranged to have access to the personal homepage on Internet.

9. Device as claimed in patent claim 7 or 8, c h a r a c t e r i z e d in, that the codes are
30 alphanumeric and uniquely indicated for each piece of printed information.

10. Device as claimed in patent claim 9, c h a r a c t e r i z e d in, that the codes further
35 indicate which media, for instance journals or other publications, that are referred to.

11. Device as claimed in any of the patent claims 7 to 10,
c h a r a c t e r i z e d in, that said codes further
indicate author, subject field, publication date and
the issue number of the journal/publication.
- 5
12. Device as claimed in any of the patent claims 7 to 11,
c h a r a c t e r i z e d in that the customer is
allowed to indicate sorting criteria, for instance
publication date and/or author and/or the name of the
10 journal/media.
13. Device as claimed in any of the patent claims 7 to 12,
c h a r a c t e r i z e d in that the portal is
Internet-based, and is arranged to derive said pieces
15 of information from appropriate databases, which
include access to the publications/articles.
14. Device as claimed in patent claim 7,
c h a r a c t e r i z e d in that the code is
20 transmitted/transferred from a terminal, preferably a
mobile terminal.
15. Device as claimed in patent claim 7 or 14,
c h a r a c t e r i z e d in that the codes are
25 transmitted/transferred as SMS-messages from the
users.
16. Device as claimed in any of the patent claims 7 to 15,
c h a r a c t e r i z e d in that the codes are
30 allowed to be transmitted/transferred verbally or via
keyboard/keyset.
- 35

1/2

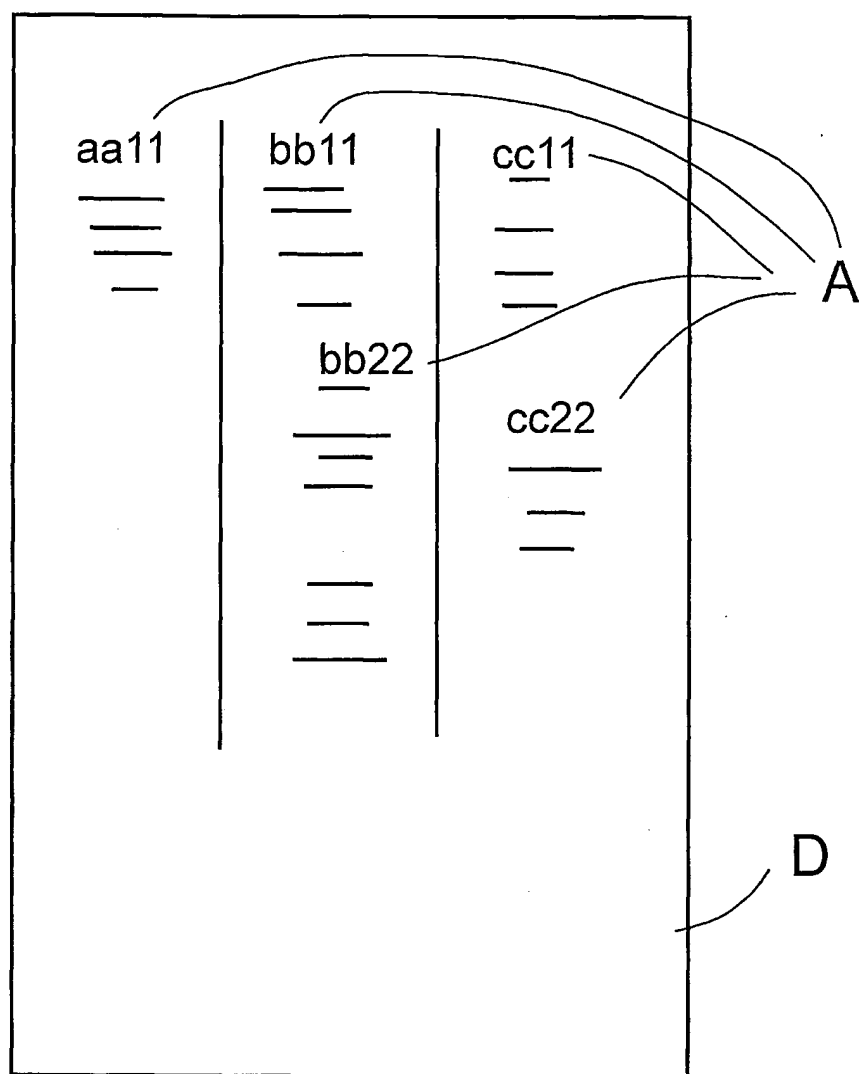


Fig 1

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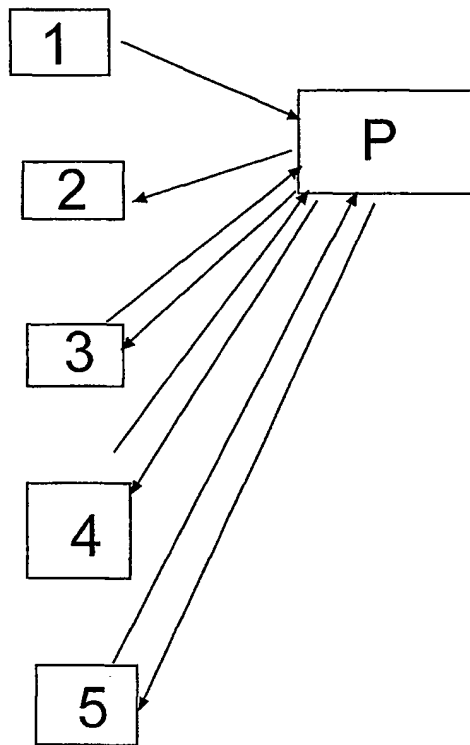


Fig 2

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 01/02622

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G06F 17/30, G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---------------------------------------------------------------------------------------------------------------|-----------------------|
| X | US 5978773 A (HUDETZ, F.C. ET AL), 2 November 1999 (02.11.99), figure 1, abstract -- | 1-16 |
| X | WO 0045302 A1 (BARPOINT.COM, INC.), 3 August 2000 (03.08.00), page 4 - page 8, abstract -- ----- | 1-16 |

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

6 March 2002

08-03-2002

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INTERNATIONAL SEARCH REPORT
Information on patent family members

28/01/02

International application No.
PCT/SE 01/02622

| Patent document cited in search report | | | Publication date | Patent family member(s) | | Publication date |
|-------------------------------------------|---------|----|---------------------|----------------------------|-----------|---------------------|
| US | 5978773 | A | 02/11/99 | AU | 6388496 A | 22/01/97 |
| | | | | EP | 0832453 A | 01/04/98 |
| | | | | US | 6199048 B | 06/03/01 |
| | | | | WO | 9701137 A | 09/01/97 |
| ----- | | | | | | |
| WO | 0045302 | A1 | 03/08/00 | AU | 3215000 A | 18/08/00 |
| ----- | | | | | | |